GOVERNMENT OF INDIA
URBAN DEVELOPMENT AND POVERTY ALLEVATION
LOK SABHA

STARRED QUESTION NO:642
ANSWERED ON:06.05.2003
PROMOTION AND DEVELOPMENT OF LOW COST HOUSING
NANDIPAKU VENKATASWAMY

Will the Minister of URBAN DEVELOPMENT AND POVERTY ALLEVATION be pleased to state:

(a) the steps taken by the Union Government for the promotion and development of low-cost Housing in the small and medium towns in the country;

(b) the details of low-cost technologies developed by the HUDCO and other agencies such as BMTPC etc. for housing;

(c) whether these techniques/technologies have been put into commercial use;

(d) if so, the details thereof;

(e) whether any training is being imparted to the skilled and semi-skilled labourers engaged in housing construction for using these technologies; and

(f) if so, the details in this regard?

Answer

MINISTER OF URBAN DEVELOPMENT & POVERTY ALLEVIATION (SHRI ANANTH KUMAR)

(a)to(f): A Statement is laid on the Table of the Sabha.

STATEMENT REFERRED TO IN REPLY TO LOK SABHA STARRED QUESTION NO. 642 FOR 6.5.2003 REGAR PROMOTION AND DEVELOPMENT OF LOW COST HOUSING.

(a): Following steps have been taken by the Government for promotion of low cost housing:

1 . Incorporation of low cost building technologies in the specifications of CPWD and State housing and building agencies and preparation of standards by the Bureau of Indian Standards (BIS) to cover cost effective materials and construction technologies.

2 . Strengthening arrangements for large-scale field applications of cost effective technologies and commercializing production of innovative low cost materials and components through Building Centres at grass-root level and the Building Materials and Technology Promotion Council (BMTPC) at National and regional level.

3. All materials and components, produced at Building Centres, have been exempted by Government from levy of excise duty.

4 . Providing fiscal incentives (excise and custom duty concessions) for production of cost-effective building materials and import of critical machinery and equipment, particularly, those based on industrial wastes like fly ash, phosphogypsum and red-mud.

5 . Providing institutional finance for setting up commercial production units of low cost materials through Housing & Urban Development Corporation Ltd. (HUDCO).

6. Promotion of cost-effective technologies in the housing schemes being funded by housing finance institutions like HUDCO, National Housing Bank etc.

(b)to(d): The BMTPC has developed a number of technologies for lowcost housing. Several of these have been ilcensed to entrepreneurs for commercialization. Details of these technologies are placed at Annexure-I.

A list of machines, developed by BMTPC for production of cost-effective prefab building components for low cost housing and speedy construction, is furnished at Annexure-ll. So far, more than 1000 of these machines are operating in different parts of the country.

(e)&(f): Yes, Sir. Under the Building Centres scheme, 2,26,526 artisanshave been provided training. State-wise details are furnished at Annexure-lll.

ANNEXURE-I

INNOVATIVETECHNOLOGIESDEVELOPEDBY BMTPCAND LICENSEDTO ENTERPRISES FOR COMMERCIA

PRODUCTION.

TECHNOLOGY DEVELOPED:

1. Development of paints for building application using industrial wastes.

2. Development of Bamboo Mat Corrugated Roofing Sheets and production process.

3. Glass Ceramic Tiles technology from waste of aluminium platns.

4. Polymer Bonded Composite Panelling Materials using Banana Leaf Sheath (pseudo-Stem) Veneers.

5. Blocks & Bricks from marble Dust.
6. Cementitious Binder and building blocks from Acetylene Plants.

7 Ferrocement Components for varied applications.

8. Interlocking Block Mortarless Masonry.

9. Glass Fibre Reinforced Polymer based doors and door frames.
10. Development of Coir Cement Composites.
11. Development of Metallic Mould for Ceramic Glass Fibre hybride composites for door shutters and frames.
12. Development of VLL from Poplar/Rubber wood for door shutters.
13. Development of Water Reducing Agent from Coal Tar Industry waste.

TECHNOLOGIES ALREADY LICENSED TO ENTREPRENEURS FOR COMMERCIAL PRODUCTION.

1. Red Mud/Flyash Polymer fibre door shutters

2. Eco-friendly rubberwood flush door shutter

3. Eco-friendly solid core poplar wood flush door shutters

4. Glass Fibre reinforced Polymer based doors and door frames

5. Development of Process for production of reactive silica from rice husk (negotiations going on).
6. Bricks/tiles/pavers from Jhamarkotra Phosphate Ore waste

7 Metallic mould for fabrication of doors and door frames using GRP/Coir composites.

8. Cost- effective mortars from industrial by-products and unprocessed micro-fillers.

9. Cost-effective rafters for rural house construction

ANNEXURE-II

MACHINES DEVELOPED FOR PRODUCTION OF COST-EFFECTIVE PREFAB BUILDING COMPONENTS.

1. Concrete door & window frame making machine

2. Machine for producing Concrete Lintels, Shelves & Rafters etc.

3. Ferrocement roofing channel making machine (upto 6.1 mtr.)

4. Automatic Coal Stoker for feeding coal in brick kilns

5. Flyash-sand-lime brick making machine
6. Precast concrete RCC plank casting machine

7 Precast concrete RCC joists making machine

8. Precast concrete L-panel making machine
9 Pipe and bar cutting machine
10. Mobile stone/coal crusher
11. Bi-directional vibro press for flyash/concrete blocks, bricks and pavers (three models).
12. Alternate station hydraulic flyash brick making machine
13. Machines for making re-mud jute polymer door shutters
14. Hollow/solid concrete block making machine (standing type)
15. Ferrocement door shutter making machine
16. Ferrocement wall panel making machine
17. Multi-purpose Stone cutting, polishing and grinding machine.
18. Hydraulic Press and full production line for cement-flyash blocks,bricks and pavers.
19. Machine for Finger shaping & jointing, the unique technology for joining small sections of wood.
20. Hot Press for manufacture of bamboo mat corrugated roofing sheets.
21. Stablished earth blocking making machine (motorised)
22. Mobile grinding machines for rubbles, malba etc.
23. Clay-flyash brick making machine
24. Chequerred/terrazo tile machine
25. TNG Rural Housing Kit
26. RCC plank casting machine (Egg laying type)
27. RCC joist casting machine (Egg laying type)
28. MCR tile making machine (Manual)
29. Solid/hollow concrete block machine (Manual)

ANNEXURE-III

TRAINING OF ARTISANS THROUGH BUILDING CENTRES AND NRY PROGRAMME

As on 31.3.2003

Sl. No.	State/UT Name	BC Training	NRY Training
1.	ANDHRA PRADESH	50903	3905
2.	ANDMAN & NICOBAR	110	0
3.	ARUNACHAL PRADESH	55	0
4.	ASSAM	1073	280
5.	BIHAR	12330	1851
6.	CHANDIGARH	0	143
7	CHHHATTISGARH	58	0
8.	DADAR NAGAR HAVELI	0	0
9.	DAMAN & DIU	0	0
10.	DELHI	1683	0
11.	GOA	0	0
12.	GUJARAT	1695	345
13.	HARYANA	6216	863
14.	HIMACHAL PRADESH	413	117
15.	J & K	2332	918
16.	JHARKHAND	696	0
17.	KARNATAKA	18555	8116

18. KERALA	10338	4866
19 LAKSHWADEEP	0	0
20. MADHYA PRADESH	7498	30
21. MAHARASHTRA	3433	3084
22. MANIPUR	999	101
23. MEGHAYALA	364	0
24. MIZORAM	286	0
25. NAGALAND	140	0
26. ORISSA	4267	220
27 PONDICHERRY	473	140
28. PUNJAB	1321	2722
29. RAJASTHAN	13188	5672
30. SIKKIM	0	369
31. TAMIL NADU	22236	12054
32. TRIPURA	772	0
33 UTTAR PRADESH	3661	3365
34. UTTARANCHAL	1465	0
35. WEST BENGAL	7382	3423

TOTAL	173942	52584

Total Training:	226526
During 2002-2003:	12982